

Animal Enhancement Activity – ANM46 – Extend retention of captured rainfall to provide late winter habitat for migratory waterfowl and shorebirds



Enhancement Description

This enhancement is to provide late winter, shallow water habitats for migratory waterfowl and shorebirds by retaining water into mid-March.

Land Use Applicability

Cropland

Benefits

Harvested and idled agricultural lands, notably those occurring within rice rotations, provide high quality habitat for waterfowl, wading birds, and shorebirds when flooded to shallow depths during fall and winter (Eadie et al. 2008). Benefits may become greatest during late winter and early spring as birds are assimilating nutrient and fat reserves in preparation for northward migration (Miller 1986, Baldassarre and Bolen 2006). However, agricultural fields flooded during fall-winter are typically drained during late January or February in advance of spring planting. This often results in a rapid reduction in available habitat, and may constrain ability of migratory birds to adequately prepare for migration, with greatest impacts likely occurring during years of low winter precipitation (Ballard et al. 2006, Brasher et al. 2011). Retention of water on agricultural lands into early spring will produce maximum benefits to migratory waterfowl and shorebirds by providing high quality habitat during a time when habitat may otherwise be in low abundance.

Conditions Where Enhancement Applies

This enhancement applies to crop land use acres with leveed fields that are capable of holding water at an average depth of 6 to 18 inches for the duration of the activity.

Criteria

Implement the following:

1. Develop a wildlife habitat management plan for the suite of species targeted.
2. Water control structures affecting the subject land use acre are to remain closed until late winter to early spring.
 - a. Water depths of 6 to 10 inches provide maximum benefit to targeted species.
 - b. Water depths shall not exceed 18 inches for any extended period.

Note: This activity should be grouped with Animal Enhancement Activity-ANM44-Close structures to capture and retain rainfall for waterfowl and wading birds during winter. This activity can be grouped with Animal Enhancement Activity-ANM45-Manipulate vegetation on fields where rainfall is to be captured and retained. If not grouped with Animal Enhancement



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Activity-ANM45-Manipulate vegetation on fields where rainfall is to be captured and retained, this activity can also be grouped with Animal Enhancement Activity-ANM47-Shorebird habitat, late season shallow water with manipulation or Animal Enhancement Activity-ANM48-Shorebird habitat, extended late season shallow water with manipulation.

Adoption Requirements

The enhancement is considered adopted when the water control structure affecting the land use acre remains closed beyond mid to late winter.

Documentation Requirements

1. Copy of the wildlife habitat management plan
2. Date the structures were initially closed during fall
3. Date the structures were opened
4. Representative digital photographs of the condition of the structures and the habitat provided

References

Baldassarre, G. A., and E. G. Bolen. 2006. Waterfowl ecology and management. Second edition. Krieger Publishing, Malabar, Florida, USA.

Ballard, B. M., J. E. Thompson, and M. J. Petrie. 2006. Carcass composition and digestive-tract dynamics of northern pintails wintering along the lower Texas coast. *Journal of Wildlife Management* 70:1316-1324.

Brasher, M. G., M. W. Parr, B. C. Wilson, and R. Thiel. 2011. Evaluation of winter waterfowl habitat availability through the Texas Prairie Wetlands Project in agricultural landscapes of the Texas Mid-Coast. Unpublished report, Gulf Coast Joint Venture, Lafayette, Louisiana, USA.